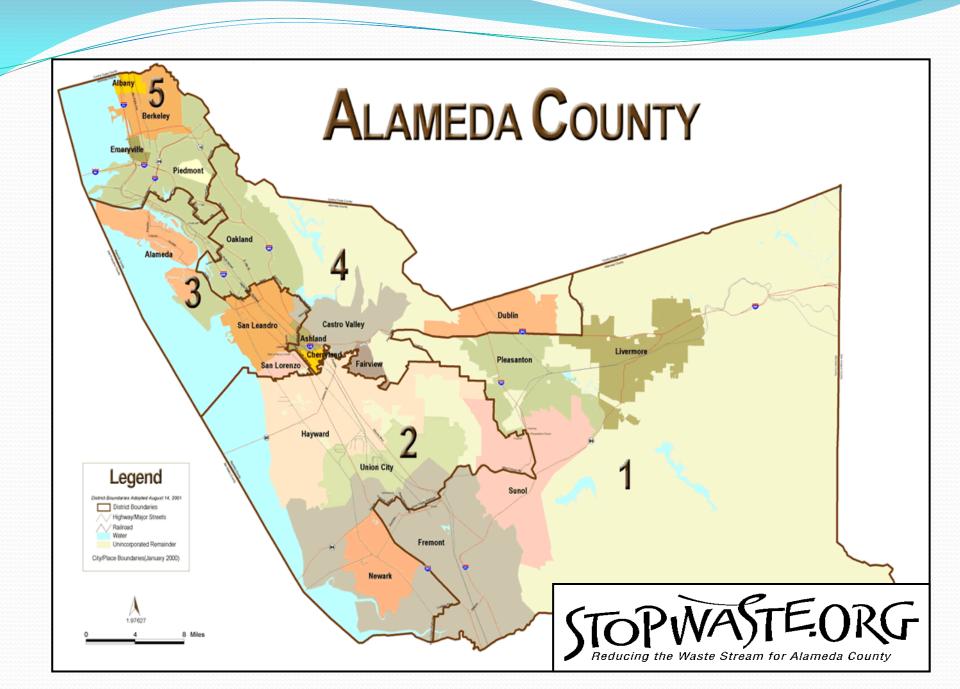
US Composting Council 2011 – San Jose

Residential Route Monitoring: A Case Study

Brian Mathews
Senior Program Manager
Alameda Co. Waste Management Authority





What is Route Monitoring

= The collection of a data which is statistically valid and representative of the demographic mix of the community.

Why Route Monitoring

- Cost Effectiveness
- Participation
- Diversion Calculation
- Message Testing
- Enforcement

RFID Route Monitoring

- Customer Service
- Cart Servicing
- Accurate Billing
- Tracking Cart Placement
- Weight Measurement



Hangtags



Website



Ads/Posters



Bill Inserts

Things We've Tried

Free Compost coupons

Raffle for Free Garbage Service







FREMONT BULLETIN





Tri-Jalley Herald

Are you Fremont's top recycler?
Ready, Set, Recycle is your chance to prove it and win!





KPIX 5 Story





EYEWITNESS NEWS

How To Monitor –Lid Flipping

- Get up Early
- Coordinate with Hauler
- Select Representative Routes
- Choose Sample Size
- Safety, Safety, Safety

#		Garl	oage		% Full	Hang tag	Recycling	% Full	Green Waste	Food Scraps	Notes/Problem*
	20	32	64	96							
1											
2											
3											
4											
5											
6											
7											

Auditing









	Garbage Cart Info			Result	Gar	bage ir	n Gart	oage	Recy In Garbage		Organics in Garbage										
Address	Size	% full	wt	% Recy and Organics is of Garbage	# of Bucke ts	Total wt.	Net wt.	%	# of Buck ets	Total Wt.	Net wt.	%	# of Buck ets	Total Wt.	Net wt.	%	Recy Cart	FS in Grn Crt	Route Day	Sort Day	Recy Cart size
7276 Thames Ct.	32	20%	12.4	81.5%	1	3.8	2.3	19%	1	4.8	3.3	27%	1	8.3	6.8	55%	80%	Υ	28-Jun	19-Jul	96
5453 Eaglebrook Terr	32	20%	2.9	27.6%	1	3.6	2.1	72%	1	1.6	0.1	3%	1	2.2	0.7	24%	50%	Y	2-Jul	23-Jul	64
8015 Via Zapata	32	30%	5.9	91.5%	1	2	0.5	8%	1	4.8	3.3	56%	1	3.6	2.1	36%	60%	Y	30-Jun	21-Jul	64
11773 Bloomington	32	40%	12.7	81.9%	1	3.8	2.3	18%	1	1.8	0.3	2%	1	11.6	10.1	80%	60%	?	30-Jun	21-Jul	64
8280 Cardiff Dr	32	50%	10.6	82.1%	1	3.4	1.9	18%	1	2.4	0.9	8%	2	10.8	7.8	74%	60%	Y	1-Jul	22-Jul	64
7887 Peppertree	32	60%	10.8	55.6%	2	7.8	4.8	44%	1	2.6	1.1	10%	1	6.4	4.9	45%	70%	?	29-Jun	20-Jul	64

Winning Carts

Dublin	Total Garbage wt (in lbs)	% Good Stuff in Garbage	% Garbage	% Recyclable	% Compostable	FS in Grn Crt?
Monday Winner	11.5	24%	76%	0%	24%	Υ
Tuesday Winner	9.4	25%	76%	0%	24%	Υ
Wednesday Winner	14.3	41%	59%	3%	37%	Υ
Thursday Winner	37	26%	74%	6%	20%	?
Friday Winner	18.1	13%	87%	5%	8%	Υ
Fremont						
Monday Winner	52.5	69%	31%	17%	51%	Υ
Tuesday Winner	11	14%	86%	9%	5%	?
Wednesday Winner	1	0.0%	100%	0%	0%	Υ
Thursday Winner	7	57%	43%	0%	57%	Υ
Friday Winner	3.5	14%	86%	0%	14%	Υ

Participation in Residential Food Scrap Programs Results of 2009 Audits - Alameda County Jurisdictions

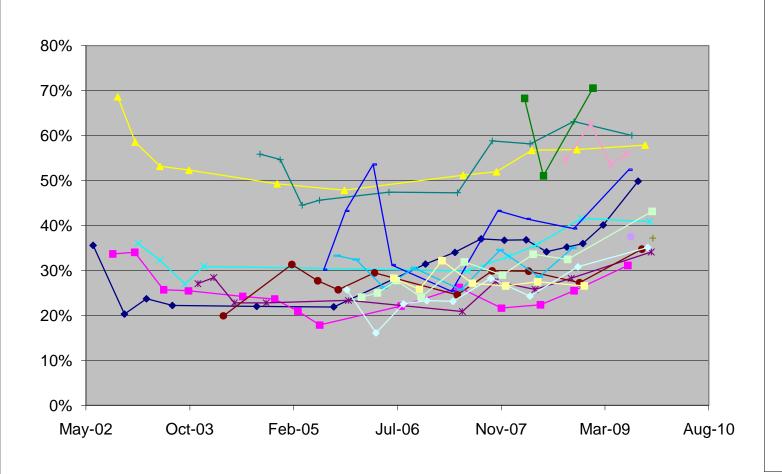
		Average	Contam-				
		Any Cart	Setout ¹	Green Car	ination4		
	Audit	Unadjusted	Adjusted ³	Unadjusted	Adjusted ³	per Green	
Jurisdiction	Time Period	(percent)	(percent)	(percent)	(percent)	Cart (%)	
Alameda	Oct 2009	39.4	44.6	57.9	65.4	11.2	
Albany	Aug 2009	38.4	43.4	60.0	67.8	7.2	
Berkeley	Jan 2009	47.2	47.2	70.5	70.5	3.9	
Castro Valley	Mar, Sept 2009	25.4	28.7	45.0	50.8	9.7	
Dublin	Oct 2009	20.6	23.3	35.1	39.7	11.0	
Emeryville	July 2009	21.4	24.2	52.4	59.2	14.3	
Fremont	Nov 2009	22.7	25.6	34.1	38.5	7.8	
Hayward	Aug 2009	20.3	22.9	37.5	42.4	12.9	
Livermore	Sept 2009	22.3	25.2	34.7	39.2	8.4	
Newark	May, Dec 2008	14.1	15.9	27.0	30.5	8.3	
Piedmont	July 2009	51.7	51.7	55.9	55.9	4.4	
Pleasanton	July 2009	21.5	24.3	31.1	35.1	5.4	
Oakland	May, Nov 2008	14.2	16.0	31.8	35.9	11.7	
Oro Loma	Oct 2009	21.1	23.8	37.2	42.0	9.6	
San Leandro	Oct 2009	21.3	24.0	40.9	46.2	13.6	
Union City	Nov 2009	19.0	21.4	43.2	48.8	13.5	
Average for All							
Jurisdictions		26.3	28.9	43.4	48.0	9.6	

Additional Studies

- 10 lbs/household
- What's Buried underneath
 - 13% adjustment factor
- Set-out Frequency
 - •17% never, 17% always, 66% 1-3/month

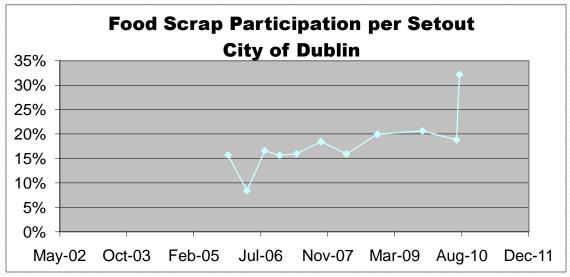
Results

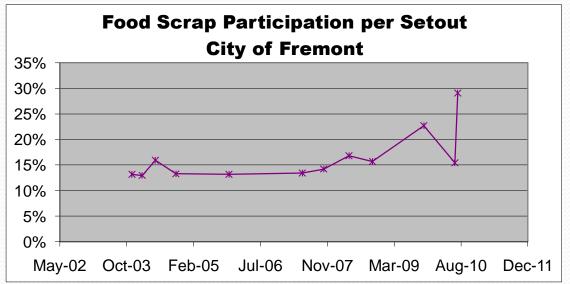
Food Scrap Participation per Green Cart Setout





Results





Lessons/Considerations

- Garbage Cart are Full
 - 32 gal 70% full
 - 64 gal 65% Full
- Recycling Carts -- are 65% Full
 - Fremont 39% are 90-100% full
 - Dublin 43% are 90-100% full

Contact

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